

FIG. 1

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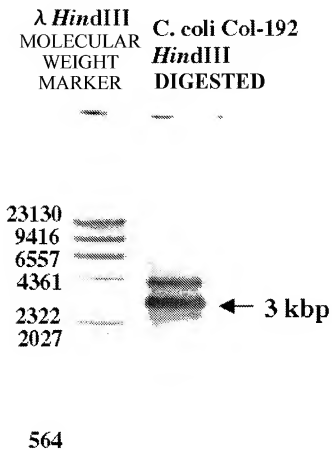


FIG. 2

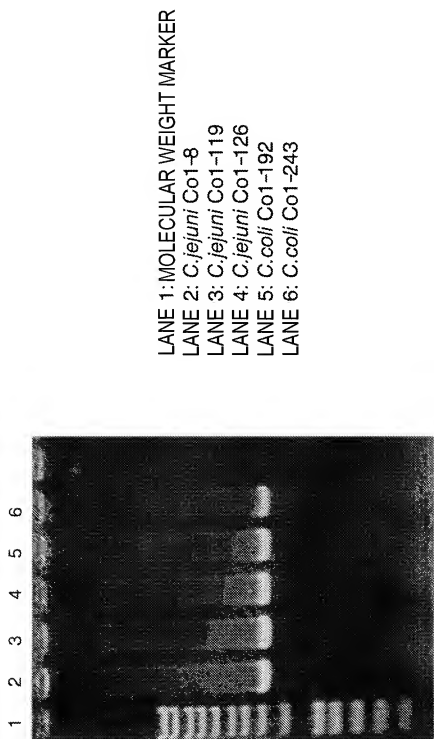


FIG. 3

LANE 1: MOLECULAR WEIGHT MARKER

LANE 2: *C. jejuni* Co1-8

LANE 3: *C. jejuni* Co1-119

LANE 4: *C. jejuni* Co1-126

LANE 5: *C. coli* Co1-192

LANE 6: *C. coli* Co1-243

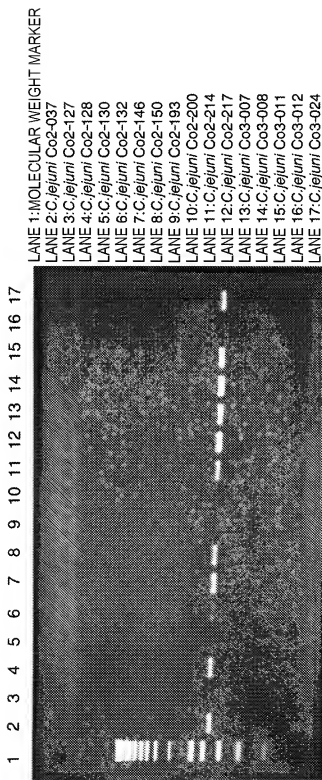


FIG. 4

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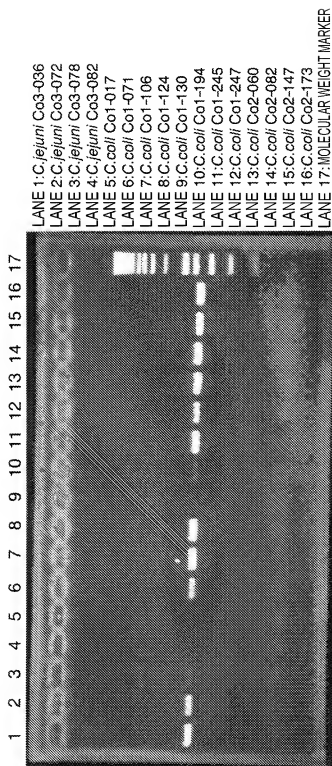


FIG. 5

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LANE 1: MOLECULAR WEIGHT MARKER
LANE 2: *C. coli* Co2-215
LANE 3: *C. coli* Co2-218
LANE 4: *C. coli* Co3-134
LANE 5: *C. jejuni* Co1-8
LANE 6: *C. coli* Co1-192
LANE 7: *C. fetus* Co1-187
LANE 8: *E. coli* JM109

1 2 3 4 5 6 7 8

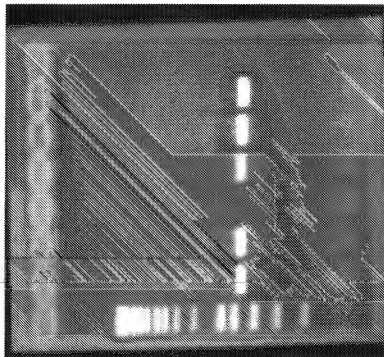


FIG. 6

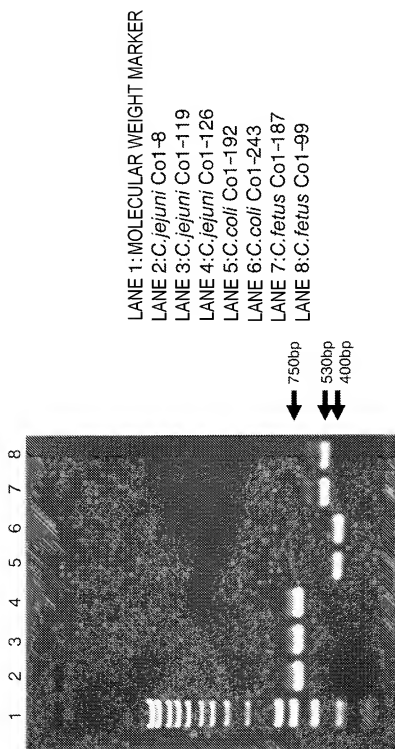
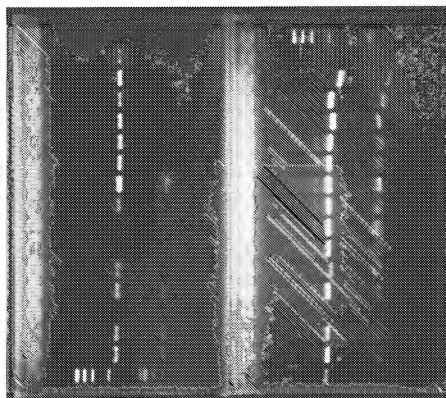


FIG. 7

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17



18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 34

LANE 1: MOLECULAR WEIGHT MARKER
 LANE 2: *C. jejuni* Co2-037
 LANE 3: *C. jejuni* Co2-128
 LANE 4: *C. jejuni* Co2-132
 LANE 5: *C. jejuni* Co2-146
 LANE 6: *C. jejuni* Co2-150
 LANE 7: *C. jejuni* Co2-193
 LANE 8: *C. jejuni* Co2-200
 LANE 9: *C. jejuni* Co2-214
 LANE 10: *C. jejuni* Co2-217
 LANE 11: *C. jejuni* Co3-007
 LANE 12: *C. jejuni* Co3-008
 LANE 13: *C. jejuni* Co3-011
 LANE 14: *C. jejuni* Co3-024
 LANE 15: *C. jejuni* Co3-036
 LANE 16: *C. jejuni* Co3-072
 LANE 17: *C. jejuni* Co3-078
 LANE 18: *C. coli* Co1-071
 LANE 19: *C. coli* Co1-106
 LANE 20: *C. coli* Co1-124
 LANE 21: *C. coli* Co1-194
 LANE 22: *C. coli* Co1-245
 LANE 23: *C. coli* Co1-247
 LANE 24: *C. coli* Co2-060
 LANE 25: *C. coli* Co2-082
 LANE 26: *C. coli* Co2-147
 LANE 27: *C. coli* Co2-173
 LANE 28: *C. coli* Co2-215
 LANE 29: *C. coli* Co2-218
 LANE 30: *C. jejuni* Co1-8
 LANE 31: *C. coli* Co1-192
 LANE 32: *C. fetus* Co1-187
 LANE 34: MOLECULAR WEIGHT MARKER

FIG. 8

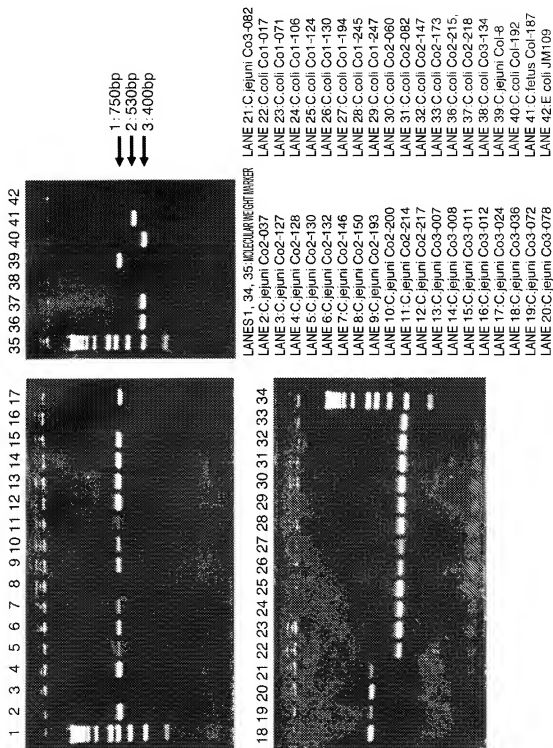


FIG. 9

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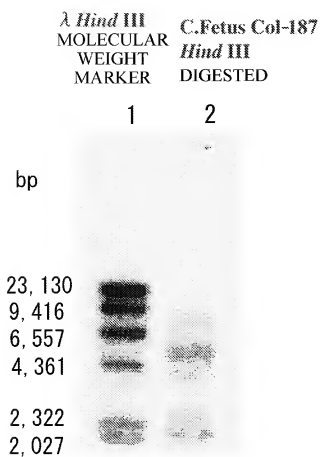


FIG. 10

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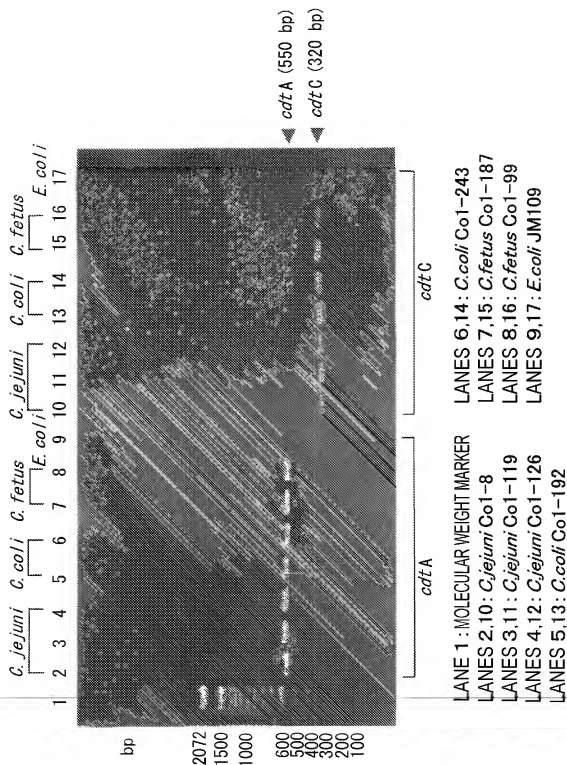


FIG. 11

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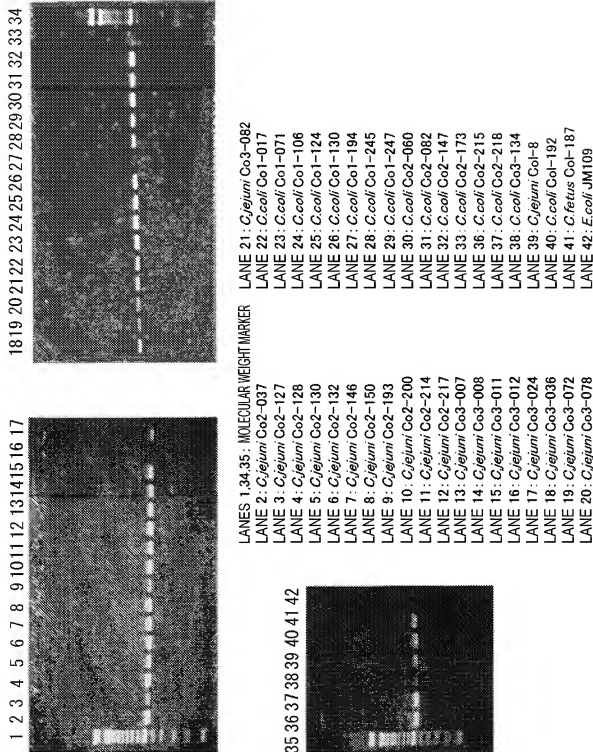
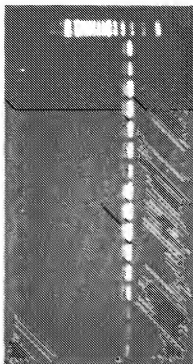


FIG. 12

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18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34

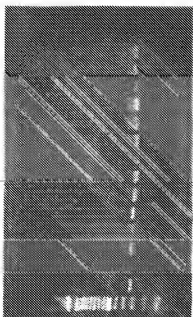


LANE 21: *C. jejuni* Co3-082
 LANE 22: *C. coli* Co1-017
 LANE 23: *C. coli* Co1-071
 LANE 24: *C. coli* Co1-106
 LANE 25: *C. coli* Co1-124
 LANE 26: *C. coli* Co1-130
 LANE 27: *C. coli* Co1-194
 LANE 28: *C. coli* Co1-245
 LANE 29: *C. coli* Co1-247
 LANE 30: *C. coli* Co2-060
 LANE 31: *C. coli* Co2-082
 LANE 32: *C. coli* Co2-147
 LANE 33: *C. coli* Co2-173
 LANE 36: *C. coli* Co2-215
 LANE 37: *C. coli* Co2-218
 LANE 38: *C. coli* Co3-134
 LANE 39: *C. jejuni* Co1-8
 LANE 40: *C. coli* Co1-192
 LANE 41: *C. fetus* Co1-187
 LANE 42: *E. coli* JM109

LANES 1,34,35: MOLECULAR WEIGHT MARKER

LANE 2: *C. jejuni* Co2-037
 LANE 3: *C. jejuni* Co2-127
 LANE 4: *C. jejuni* Co2-128
 LANE 5: *C. jejuni* Co2-130
 LANE 6: *C. jejuni* Co2-132
 LANE 7: *C. jejuni* Co2-146
 LANE 8: *C. jejuni* Co2-150
 LANE 9: *C. jejuni* Co2-193
 LANE 10: *C. jejuni* Co2-200
 LANE 11: *C. jejuni* Co2-214
 LANE 12: *C. jejuni* Co2-217
 LANE 13: *C. jejuni* Co3-007
 LANE 14: *C. jejuni* Co3-008
 LANE 15: *C. jejuni* Co3-011
 LANE 16: *C. jejuni* Co3-012
 LANE 17: *C. jejuni* Co3-024
 LANE 18: *C. jejuni* Co3-036
 LANE 19: *C. jejuni* Co3-072
 LANE 20: *C. jejuni* Co3-078

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17



35 36 37 38 39 40 41 42

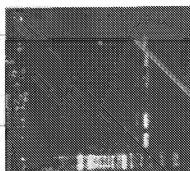


FIG. 13

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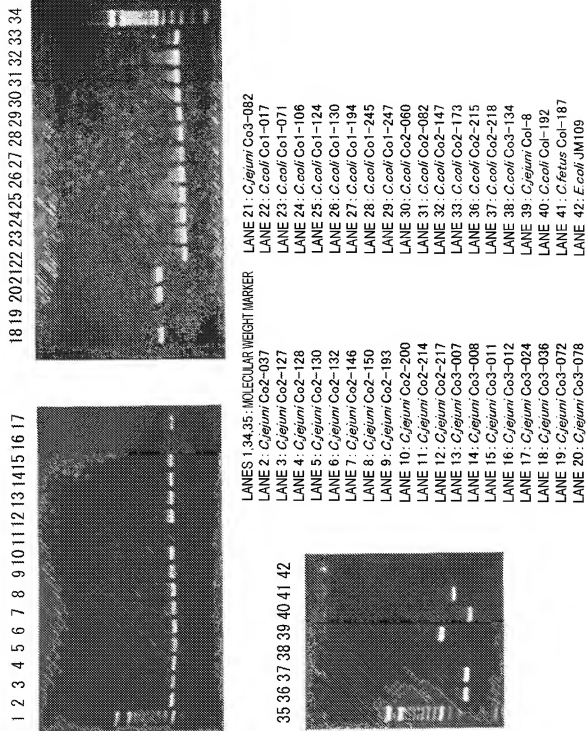


FIG. 15

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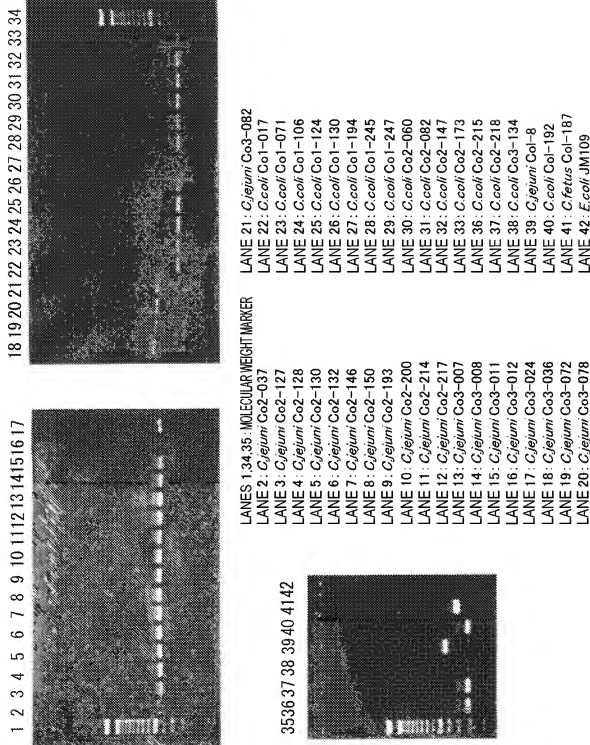


FIG. 16

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C. jejuni cdt ORF

ATGCAAAAAATTAGTITTTATTTATGTGTTTATGACTTTTTTCTTTATGCATGTTCTTCTAAATTTGAAATGT
 AAATCCTTTGGGGCGTTCATTGGAGAAATT₆₄GAGATACTGATCCTTTAAAC₇₁AGGACTGAACCTACTTTTC₈₈CT
 ACCAATCAAGAAATCCAAGTTAATTACGGTGCTGATTTAGTACCTATTACTCCTATTACCCACCTTTAACTAGAAC
 AAGCAATAGTGCCAACAATAATGCAGCAAAATGGATCAATCCTCGCTTTAAAGACGAGCTTTTAATGATGTTTAAITTT
 TTGAAATCGCCTGCGGTTCTGATTTTTTAAACATTTTAGGCCCTAGCGGAGCAGCTTTAACGGTTTGGGCTTTAGCA
 CAAGGAAATTTGGATTTGGGGCTATACITTAATCGATAGCAAAGGATTTGGCGATGCTAGAGTTTGGCAACTTTTGCTTTA
 TCCTAATGATTTTGCAATGATTAATAATGCCAAAACCAATACTTGCTTAATGCTTAATGGTAATGGAATTTGCCATTATC
 CTGTGATGCAAGCAATCAGCACAATAATGGAACTTATCCCTATGAGCAATACAGCGGTCAAATTAATAATTTAGGA
 AATGAAAA₆₈TGCATACAAGCACCTATTAC₇₄AAATCTTTATGGTGATTTTACAAGGTTTTTAAATTTTACCCTAGAG
 TGTGCAAAAAAGATAATTTGATCAACAAT₆₈GGTTTTTAACCTACTCCGCC₇₁TTTACCGCA₁₁AAACCTTTATATCGCCA
 AGGAGAGGTACGATGAAAAAATTATATGTTTATTTTTATC₁₇TTTAACTTGCTTTTGCAAAATTTAGAAAAATTTAAT
 GTTGGCAGCTTGAATTTGCAAGC₉TCATCCGACGCCACAGAAAGCAAAATGGA₁₈GTGTTAGTGTAGACAACCTTGAAGT
 GGAGCAAAACCCCTTAGATATCTTAATGATAC₂₄AAGAAGCAGGAACCTTACCAAGAAC₂₉AGCCACTCCAACAGGACGCC₁₉
 ATGTGCAACAAGGTGGAACACC₂₇TATTGATGAATATGAGTGGAAATTTAGG₂₆AACTCTTTCAAGGCCTGATAGGGTTTTT
 ATTTATTATTCTCGCGTTGATGAGGAG₄₈CTAATCGTGAATTTAGCTATAGT₇₁TCAGAATGCAAGCTGAA₂₁GAAGT
 GATTGTTTTACCTCCACTACTACAGTTTCAAGACCCATTATAGGAATTCGCAATGGAATGATGCTTTTTTCAATATCC
ATGCTTTAGC₄₉TAATGGAGGAACAGATGAGGACCAATTATCAGAGCTGATAGTGACA₂₂TTTTGCAAAATAGCCTCAA
 GTTAACTGGATGATAGCAGGGGATTTTAA₅₀CCGTGATCCTTCTACTATAACAAGT₂₃ACAGTGGATAGAGAATTAGCAAA
 TAGAATTAGAGTGGTTTTTCCAACCTAGCGCAACTCAAGCAAGCGGAGGACTCTTGATTATGCAATTACAGGAATTTCAA
 ATA₂₄GACAACAACCTATACT₃₁CACCGCTTTTAGCTGCGATTTTAATGCTTGAAGTTTAAAGATCTCATAT₂₅AGTTTC
 AGATCAATTTCCAGTAAATTTTAGA₁₀AAATTTTAGGACATTAATATGAAAAAATATTACTTTGTTTTATGTTTA
 TAACTTTAGCCTTTGCAACTCCTA₇₄CTGGAGATTTGAAAGATTTTACCGAAATGGTTTCTATAAGAAGCTTAGAAACGG
 GAATTTTTTAAAGCGCCTTAGGGATACCTCAAAA₆₈GATCCTATTGATCAAAATTTGA₇₄ATATTAAAGAAATTTGTTTAA
 GCGATGAGTAAAAACAAAGATAAATAGCTGATGAATTCCTTTTGTTATGTGCAATTTACAATCCAAAAGAAAGC
 GATCTTTGTTAGCCATCTTAGAAGATGGAACCTTTGGAGCAAAATCTTGCAAGATGATCTAAAGATGGTAAATAGA
 AACTGTATTTCTATAATGCCAACAACTTCAGCTGTGCAAAATTCGTTCTTTAGTTTTGGAATCTGATGAATGATATAG
 TAACTTTTTTAATCCAATATCTCTATACAAAACGCTTTGGAA₈TAGC₆₇CCCTTGACCCCTAGATCTCATTTTTTTT
 GCTGAAGTAAATGAACTAATGATTATAACCCACCTTTAAACAGCTGCTACCCCTT₇₅TAGAATAA

FIG. 17

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C. coli cdt ORF

ATGCAAAAAATAAAATTAAGCCTAATGTTTTGATTGTAACAATCATTTTTTACGTTGTTCTTCAAAAGAACAAACAAT
 CAATCCTTTAGGAAGATCTTACGGTAAATTT₆₄AACGATAACGATCCTTTAAACCT₇TGGTTCAAAACCTACACCCCTG
 TCAAACAAAAACACCAAGCTTGGTAGAAGGTAAAAATTTCCCGGCATACCACTTTGCCACCTGTAATCACTCCTAAT
 ACCTTTAAAGGAGATAATGCCGTCAAAGGCCCATTGCCAAGGCTAAATCTC₇₀CAACGAATTTGCTTCAATGCTTTA
 TACGAAACACAGGTATGGTAAGTGATTTTGTCACTATTATGAATCCTAATGGAGCATCTTTAACAATCGGGCTTTAA
 TCCTGGCAATTGGATATGGGATATAGTTTATTTGCTAGTAGACCTTTTGGAGATGCAAGAGCTTGGCAGCTTATTGAAT
 TTCCAACAATACAGTAATGATTAATAATGCAAAACATTTACTTGCTTAAAGCCTATAGAAATGGCATCGTTCATTAT
 CCTTGATGATCAACAAATTTTGGCAGTTTGGAGACTTATC₇₁CGATGACTAATGGAGCTTATCAAAATCAAAATTTT
 GCCACCCAACT₇₅ATGTATACAACACCTGTTTCAAAATGTAATGGAAGATTTAATTTAGCTTTTATAATTTATTTA
 ACCGATTGTTGAAAGAAAAAGAAAGAATTTGGATAGACAGTGGTATATAGCGCTCCTATTATTTTTCGCTATGA
 AAGGAAGATAATGAAAAATAGTATTTTGTATTTAAGTTTTAATGTATTATTGGCGC₁₃TTAGAAAATTACAACAC
 CGGAACTTGGAATTTGCAGGC₉TCATCAGCTGCAACTGAAAGCAAATGGAATGTTAGTATAAGCAACTCATAACCGGT
 GCAAATCCTATGGATGTTTTAGCTGTTCAAGAACGGGGGTTTTACCTAGTACAGCTATGATGACTCCTAGACAGGTACA
 ACCCGTGGCGTGGGTATTCCTATACATGAATACATATGGAATTTAGGCTCTGTATCAAGCACTAGCTCTG₁₀TTATAT
 ATATTATTCTAGATGGATGTAGGAGCAAAATCGTGTAAATTTAGCTATCGTTAGCAGAGTGAAGCGGATGAAGTTTTTG
 TTTTACCCCTCCAACAGTTGCTTCAAGACCTATTATAGC₃₁CATACGCATAGGCAATGA₁₄TGCTTTTTTCAATATACAC
 GCTCTAGCAAGTGGGGAATGACGCGAGGACCATTGCTGCTGCT₃₂TGGATATGTTTTTGAAGATAGACCTGATATT
 AATTGGATGATTTTAGCGATTTTAATAGAGAATCAGCGCCTTAGTAACCTTGCTAGATCCTGACTTAAAGACGCGAC
TCG₃₃CGTAGTGTGCTCCGCCCTTCT₃₆CTACGCAACAAGTGAAGAACGATTGATTATGCTATCACTGGAAATTTCCAACA
 CTGCAGCTTTATACAACCCACCACCGATAGT₁₂₉GCGATTTTGAAGGATTAAGAACCTTTTGG₁₂₄CTTCAGAT
CATTTCTCTGTAATTTTGA₁₀AGACCTTAGGAGCTTAATATC₃₉AAAAATTTTTTATTTTATTTTTTGCCCTTTTGAG
 CTTTTTGAAGCAGAGCTAGCTTGGATGAATTAGCAGACTTTACTCCTATGTTTGTATAAGATCTTTAGAAACAGGAA
 TTTCTTAAGTCCTTTAGAAAACTTCAAAA₆₆AGGTTAGAAGATCAAAATGGTTTTTAAAGAGAGTGTAGCAAAATG
 ATGAGCTAAAAGCTAGGGATATGCACGCAAAAGA₁₇₆TTTGCCTTTTGCTATGTTTCAGTTTATAAGCCCTAGGGCGGATG
 ATATATGCTAGCTGTTTTAAGTGA AAAAAGTTTTGGCACCAAATCTTGCAACAAGATTGCAAGATGGAACAATGCAG
 ACTATTTTTCTATCATACCAATGACAAATGGTTCTATACAAATTAGATCTTTAACCAATGGTGGCAATCAATGCATGAG
 CACTTTTCCTGACTCTAGTATCGCCATAGAAAATCGCTT₈TGGTTTAGG₆₇AGAATGCCCTTTGGATCGTTCTATCGTAA
 CTGTATTAAAG₇₇AACTTTTCTTTTTTCTCCCTGCTATAATCGAAGCAAGCGCAATTTACTAA

FIG. 18

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C. fetus cdt ORF

ATGACTAAAATTATTTTCAAGCATATTAATAATAGTCTTATTTTACTATTTTGATCGCTCTTTTATAGTGCTGCTCATC
 AAAAACGACAAATGTAACTCT₁₇₂AAAAATAAATCCATTAGGAAGCATTTTGGCAAAACG₉GATGATCCAGATCCAG
 TAAA₁TTTAGGCGATTTTCCAACCTCTTCAACATCAAATTTTCAAACTCTATGCCGACTAGAACGCCATGCCACTTAA
 AAAAGTGGATTTGCTGTAATGAACCTATAACACATGGTCCGATGTTTCAAGTGCTTTAGTAAACCGGACTTGAATT
 TCAAAACCACTACTATCAGCTACAAAGGTATCCCGCTGATCTATTTGATAGAACAAAGCGATTTTATGGTGATAATGGT
 GCAAAACCGCTGTGTGATCACTATTTGTACACATCTCCTGAAACTGGTTATGGGCTACTCGCTCTATGAAACGGGCAA
 TTTAGGAGGATATCGTGTGGCGCTCAATTTTACTACCAATAATGAAGTCATGATAGTAAATTTCAACACTCGCACGA
 CTTCGATAAATA₁₇₃CTTATAAAAAACGGAGTAATTCATCACTCACTTGAATAAGATAATCCTTTTCAGAAATTTACGTTTC
 GTCCAATGACAAACGGAGCGGTACAAATTTATAACAAAGCTACTAATTCG₆₈TGCTTGCAACCGCTGTTAATAATCTA
 TTCGGTTTTCAGCTTTTGGGGCGATAAATCTTACGACAAATGCACTGATACTATCGATCAACAATGGTATTTGCTCCC
 GCCCGCGCAAGTTGGAAGACTAT₁₅TTTATTAGGAGTAAAAATGCGAAATGTATTATGATTATATATATAGCAACTTTA
 GGC₃₅TTTGCAAAACGAGAAGATTATAAATTCCTACTTGGAAATTTGCAAGG₉AGTTCGGCTATAACCGAAAGCAATTCG
 A₄₇ATAAAGCGTACGTCAAATAATTAGCGGTGAAAAATCCAGCAGATATATTAGCGGTTCAAGAAGCAGGAAATTTACCT
 CAAACCGCTCTTC₂₅CTACAGGTAGAACGATAAATCAAGCGCGGCACGATC₄₀GTAACGTGACGATTTATGCGAGCTAGGCAG
 TATATCTAGACCGTTC₄₄GTCTATATATATTATGCTCAAATCGACACAGGGGCAATAGAGTAAATTTAGCAATCGT
 TTCAGCATAAAAGCTGATGAATCATCATCTTGGCGCTCTCT₄₂ACGGTAGCTTCTCGTCCGCTCATAGGTATAAGAAT
 AGGAAACGACGTATTTTCAACATACCGCTCTAGCAATGCGGAGTCGATGCTCCGGCGATAATAA₁₅TTCAATATT
 TGACAGATTTAGAAATATGCCAAATATCCTTGGATGATTTTAGCGGATTTTAACCGCTCACCTGAGAGTTTAA₄₃GG
 AACTCTTGGATTAGAAACTC₄₄CGCTCAGAGTAACGTTTTTAA₁₇CCTCCGGCGCTACTCAAGAAGCGCGGAACGC
 TTGACTGGCTATAGTTGAAACCTCAGCGCGGATCTTGTCCGAAC₄₅TACGCTGTGACAGATTTGATGCTAGCAAAAC
 TGGCGGACTCACCTA₄₆GTTTCGGACCATTTTCCGGTAAATTTTAGA₁₉AAATTTGGAGATAAATGAAGCTTTTAGCAA
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 GAATTCCTATAAATAAAGCGATTTTCAGG₆₈CAGTTTAATTACCAAACTGG₇TTTTAAATGATTTAGGAGTAGATC
 CTAAGATAAAAAAGTAGATAAATTTTCAAAATCTTTTCTTTTGGATACGTGCAATTTCAAGTAGCAGCGCAGCTAAAA
 ATGTGCCCTCAGATCGCTCTACGGGATTTTAGCACTAAAAACCTGCAAGCAAGACTACGATAGCGGAGAGTTTGAGAC
 TATTTTTCAGATCATCCCTACAAGTAGTGGAGCTATGCAGCTACGATCACTAGTTCTAAAAACAAACGAGTGCTTAGGAA
 CATTTGAAAAATCCAAAC₇₉GTCCGATC₇₉GAAGATAGACTAGACTAGT₆₇ACGCTCGCTTTTGAATTTTTTGTGCACATA
 GAGCCTAAACAACCTTTTGTATTTTACCGCGCTTAGTGAAGCTAAGGTAATTAGATAA

FIG. 19